AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (*Currently Amended*) A method for multiple access in a radio communication system that employs time division multiple access techniques, wherein ~~such that~~ a signaling multiframe is used for interchanging signaling messages between at least one fixed unit and a set of remote units located within the coverage area associated with said fixed unit, ~~wherein in that~~ the signaling multiframe comprising ~~is formed by~~ a predetermined number of virtual identities for signaling which are independent of the true identities of the remote units and generated by ~~a first~~ controller means included in the fixed unit, wherein ~~such that~~ the ~~first~~ controller means increases or/and decreases the predetermined number of virtual identities for signaling based on the level of occupancy of the signaling multiframe, and ~~wherein~~ a remote unit only uses a virtual identity in the signaling multiframe when sending a message and releases the virtual identity after the message transmission is complete.

2. (*Previously Presented*) The method for multiple access according to claim 1, wherein the number of virtual identities is less than the number of the remote units.

3. (*Currently Amended*) The method for multiple access according to claim 2, wherein the virtual identities are broadcast by a ~~first~~ radio transmitter included in the fixed unit over a pilot channel in the downlink transmission direction.

4. (*Currently Amended*) The method for multiple access according to claim 3, wherein the pilot channel is received by ~~means of~~ a ~~second~~ radio receiver included in a remote unit and is ~~being~~ fed to ~~a second~~ controller means included in the remote unit for recording the predetermined number of virtual identities for signaling.

5. (*Currently Amended*) The method for multiple access according to claim 4, wherein a virtual identity is selected by the ~~second~~ controller means of the remote unit when the remote unit wishes to transmit a signaling message via a ~~second~~ radio transmitter included in the remote unit, and the ~~second~~ controller means of the remote unit inserts the signaling message into the virtual identity selected and the signaling message is received in a ~~first~~ radio receiver included in said fixed unit.

6. (*Currently Amended*) The method for multiple access according to claim 5, wherein the signaling multiframe is received in the ~~first~~ radio receiver of said fixed unit by ~~means of~~ the ~~first~~ controller means of said fixed unit in order that the selected virtual identity will be marked as occupied and thereafter is broadcast in ~~by means of~~ said pilot channel.

7. (*Previously Presented*) The method for multiple access according to claim 1, wherein the signaling multiframe is formed by a maximum number of virtual identities for signaling that is a function of the maximum duration permissible for said signaling multiframe.

8. (*Currently Amended*) A system for multiple access in a radio communication system which comprises at least one fixed unit having an associated coverage area within which is located a set of remote units, wherein the fixed unit and the remote units employ time division multiple access techniques to establish communications and to interchange signaling messages using ~~by means of~~ a signaling multiframe, wherein the fixed unit comprises ~~a first~~ controller means for increasing or/and decreasing a predetermined number of virtual identities for signaling, which are independent of the true identities of the remote unit and generated by the ~~first~~ controller means, based on the level of occupancy of the signaling multiframe, wherein a remote unit only uses a virtual identity in the signaling multiframe when sending a message and releases the virtual identity after the message transmission is complete.

9. (*Previously Presented*) The system for multiple access according to claim 8, wherein the number of the virtual identities is less than the number of the remote units.

10. (*Currently Amended*) The system for multiple access according to claim 9, wherein ~~comprising~~ the fixed unit comprises a ~~first~~ radio transmitter for broadcasting the virtual identities over a pilot channel in the downlink direction of the transmission.

11. (*Currently Amended*) The system for multiple access according to claim 10, wherein the remote unit comprises ~~comprising the remote unit~~ a ~~second~~ radio receiver for receiving said pilot channel[[,]] that is supplied to a ~~second~~ controller means included in the remote unit for recording the predetermined number of virtual identities for signaling.

12. (*Currently Amended*) The system for multiple access according to claim 11, wherein the ~~second~~ controller means of the remote unit selects ~~is adapted for selecting~~ a virtual identity when the remote unit wishes to transmit a signaling message, inserts ~~so as to insert~~ the signaling message inside the virtual identity selected, and transmits the signaling message ~~so as to be transmitted~~ by a ~~second~~ radio transmitter included in the remote unit so that a ~~first~~ radio receiver included in the fixed unit receives the signaling message.

13. (*Currently Amended*) The system for multiple access according to claim 12, wherein the ~~first~~ radio receiver of the fixed unit supplies ~~is adapted for supplying~~ the ~~first~~ controller means of the fixed unit with the signaling multiframe, wherein ~~in order that~~ the selected virtual identity is marked as occupied and thereafter is broadcast over the pilot channel.

14. (*Currently Amended*) A system for multiple access according to claim 8, wherein said ~~first~~ controller means of the fixed unit generates ~~is adapted for generating~~ a number of virtual identities for signaling as a function of the level of occupancy of said signaling multiframe, so that there is a maximum number of virtual identities for signaling which is a function of the maximum duration permissible for said signaling multiframe.

15-17. (*Cancelled*).